

Problem C. Rich Game

One day, the god of sheep wanted to play badminton but he couldn't find an opponent. So he asked Mr. Panda to play with him. He said: "Each time I win one point, I'll pay you X dollars. For each time I lose one point, you should give me Y dollars back."

The god of sheep was going to play K sets of badminton games. For each set, anyone who wins at least 11 points **and** leads by at least 2 points will win this set. In other words, normally anyone who wins 11 points first will win the set. In case of **deuce** (E.g. 10 points to 10 points), it's necessary to lead by 2 points to win the set.

Mr. Panda is really good at badminton so he could make each point win or lose at his will. But he had no money at the beginning. He needed to earn money by losing points and using the money to win points. Mr. Panda couldn't owe the god of sheep money as god never lends money. What's the maximal number of sets can Mr. Panda win if he plays cleverly?

Input

The first line of the input gives the number of test cases, T . T test cases follow.

Each test case contains 3 numbers in one line, X, Y, K , the number of dollars earned by losing a point, the number of dollars paid by winning a point, the number of sets the god of sheep is going to play.

Output

For each test case, output one line containing "Case #x: y", where x is the test case number (starting from 1) and y is the maximal number of sets Mr. Panda could win.

Limits

- $1 \leq T \leq 10^5$.
- $1 \leq X, Y, K \leq 1000$.

Example

standard input	standard output
2	Case #1: 0
10 10 1	Case #2: 1
10 10 2	

Note

In the first test case, Mr. Panda don't have enough money to win the only set, so he must lose the only set.

In the second test case, Mr. Panda can lose the first set by 0:11 and he can earn 110 dollars. Then win the second set by 11:0 and spend 110 dollars.